

# **METHODS AND APPARATUS FOR DESIGN ENTRY AND SYNTHESIS OF DIGITAL CIRCUITS**

## **Abstract of the Disclosure**

5           Methods and apparatus are provided for design entry and synthesis of  
components, such as components implemented on a programmable chip. In one  
example, a design tool receives natural or intuitive parameters describing  
characteristics of a component in a design. Natural or intuitive parameters include  
input data rate, output latency, footprint, etc. Non-natural or non-intuitive parameters  
10 such as clock rate and pipeline stages need not be provided. The design tool  
automatically selects optimal components using natural parameters. Multiple  
instantiations of an optimal component, or multiplexing through an optimal  
component can be used to further improve the design.

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